

Appl. No. 09/930,161
Amendment dated June 7, 2005
Reply to Office Action of March 7, 2005

H-1000

Amendments to the Abstract

Please amend the Abstract as set forth on the following page:

ABSTRACT OF THE DISCLOSURE

Data synchronization detection means ~~3~~ is provided between data identification means ~~4~~ and code demodulation means ~~6~~ of the in a data reproduction system, which performs data synchronization detection using the code-modulated data itself; ~~a~~ A specified bit pattern generated in the a data codeword is calculated in each phase (bit), using a specified bit sequence pattern that is not generated in a specified phase of the data codeword, ~~by the conversion law during code modulation (or there is~~ For example, a specified bit sequence pattern that is generated only in a specified phase of the codeword); ~~the~~ The positions of the data codeword partitions are thereby identified. Scrambling is then applied to the write data as required in order to ensure accurate synchronization detection. ~~In addition, the data position is specified by detecting the pattern correlation between the PLO_SYNC section and GAP section. Thanks to this arrangement, a sector format can be employed constituted by PLO_SYNC, DATA, ECC and GAP, without a data synchronization signal.~~